TIMELY FARM TOPICS 26a

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A MAN AGAINST THE BUGS

Recorded Tuesday, March 13, 1945, by Ernest Moore and Duke DuMars, Office of Information, U.S.D.A. Script by Josephine Hemphill. Time, without announcer's parts, seven minutes, 35 seconds.

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ANNOUNCER: (LIVE) And now from the United States Department of Agriculture -- another transcribed report on how "farm science serves the nation." Today we'll learn how farm science...and the farmer...keep grasshoppers, chinch bugs, Hessian flies, and the white-fringed beetle of the South from eating up our food crops. Listen to the story, "Man Against the Bugs," as told by Ernie Moore and Duke DuMars, of the United States Department of Agriculture.

TRANSCRIPTION

DUKE DUMARS: "Man Against the Bugs." Ernie, that's a pretty big assignment.

MOORE: It's so big, Duke -- we'll just have to narrow it down to four insects. Let's start with the grasshopper.

DUMARS: Okay.

MOORE: You know anything about this pest?

DUMARS: Ernie, I'm from Kansas.

MOORE: Then I can't tell you anything about grasshoppers.

DUMARS: In the early days -- in the bad years -- they'd eat up everything in sight! Even the plow handles. Why, to hear the old-timers tell it -- some of those Kansas grasshoppers were 20 feet tall.

MOORE: Is that a fact!

DUMARS: Ever hear of anything like that in North Carolina?

MOORE: No -- they don't get over ten feet in North Carolina.

DUMARS: Must be a dwarf species.

MOORE: But seriously -- you don't have to exaggerate when you're talking about grasshoppers. The average annual loss...to farmers who raise cereal and forage crops...is around 26 million dollars from this one pest alone.

DUMARS: No wonder we need a national pest control program.

MOORE: And this program is handled by the Bureau of Entomology and Plant Quarantine, in cooperation with the States concerned. In fact, they've set up a special Division of Grasshopper Control. Every year they make a survey, in States where the hoppers are most abundant -- and then all this information is put on a map.

DUMARS: Have you seen the map for this year?

MOORE: Yes, I saw it just the other day, in Mr. Packard's office. You know he's in charge of research work on cereal and forage crop insects.

DUMARS: Yes --

MOORE: Well this map shows where they're expecting severe infestations of the hoppers this year.

DUMARS: Remember where these places are?

MOORE: Yes, they're in southern Arizona...southern California...the southern part of Washington State...in Idaho...and on the boundary line between Montana and North Dakota.

DUMARS: So the farmers who live in these parts of the country had better be prepared.

MOORE: That's the purpose of the survey -- to give farmers a chance to control the hoppers. And the most effective method of control so far developed is poison bait.

DUMARS: Poisoned bran -- padded with sawdust to make it cheaper.

MOORE: That's right -- and they've certainly made a lot of progress in getting the bait on the ground. In the old days, they used to spread the bait by hand. Nowadays they use power machines for mixing, motor trucks for hauling, and power machinery for spreading.

DUMARS: Sometimes they use airplanes for spreading.

MOORE: Yes, they do. So you see -- with science and the farmer always on guard...with annual surveys and forecasts...liberal use of poison bait...they've got the grasshopper pretty well under control. And that goes for the Mormon cricket, too -- which is really a big grasshopper without wings. Now -- we're ready for the chinch bug.

DUMARS: In some years, aren't they even worse than grasshoppers?

MOORE: Yes, they are. Mr. Packard told me that in 1934, the amount of corn, wheat, and other small grains destroyed by the chinch bug in seven States -- totaled nearly 69 million bushels.

DUMARS: They certainly are one of the worst pests we have.

MOORE: Ever see an army of chinch bugs -- moving from wheat to corn?

DUMARS: I sure have. The ground is just black.

MOORE: There're millions and millions of 'em.

DUMARS: I always wondered how they have sense enough -- when the wheat's dried up -- to move over to a corn field.

MOORE: Well I asked Mr. Packard that very same question. He says there's no rhyme or reason to it. But when their food supply in the wheat field is gone... they just start crawling to the nearest corn field.

DUMARS: And the best way to trap 'em -- is to make 'em crawl right into some kind of barrier.

MOORE: Yes, and one of the best is a line of coal-tar creosote -- with post holes dug every 20 feet or so along the barrier. The bugs don't like the creosote, so they don't try to get across. What happens is they travel along parallel to the barrier, and next thing they know they're in the bottom of the post hole.

DUMARS: And then it's goodbye Mr. Chinch! What about this new "DN dust" they're talking about?

MOORE: Dinitro-o-cresol. That's good, too. The bugs crawl through the dust, and it automatically kills 'em. Another chemical we may be using after the war is DDT.

DUMARS: But we can't get it -- yet.

MOORE: So we won't say much about it.

DUMARS: Have you heard reports of an outbreak of chinch bugs this spring?

MOORE: Yes I have. If we have a drought, we can expect trouble. But with lots of rain in May and June -- we may come out all right.

DUMARS: All depends on the weather.

MOORE: And that's one thing we cannot control. Now let's leave the chinch bug, and consider another crop pest -- the Hessian fly.

DUMARS: Which is not affected by either poison bait or creosote barrier.

MOORE: No, but there is a method of control. By the way -- you know how the Hessian fly got in to this country.

DUMARS: It's supposed to've been in straw bedding -- brought over by Hessian troops during the Revolutionary War.

MOORE: The flies were first noticed around 1779, on Long Island. They evidently got started in the wheat fields around New York City, spread to upper New York and Pennsylvania, and gradually got out as far as the middle of Kansas.

DUMARS: Wonder why every crop pest has to light out for Kansas!

MOORE: Because they have such good crops in Kansas. But the Hessian fly is no more partial to Kansas than to any other State where they raise winter wheat. And as I said, there is a way to control this pest. As long as a hundred years ago, farmers discovered that the best way to control the Hessian fly was to plant their wheat at just the proper time. And that proper time is late enough in the fall -- so the wheat will not come up till after the flies have emerged, laid their eggs, and died.

DUMARS: Doesn't it also help -- to plow under the wheat stubble in the summer and early fall?

MOORE: Yes, that helps -- but the main control for the Hessian fly is the proper time of planting, as worked out by entomologists in the wheat States. And now we're ready for the white-fringed beetle of the South.

DUMARS: The beetle "with the fringe on top"?

MOORE: Well, no -- it doesn't really have a fringe. Just a pale line on each side.

DUMARS: I'm disappointed. This beetle's a newcomer, isn't it?

MOORE: Yes, it's new and most unwelcome. It was first noticed in Florida, only nine years ago, by a farmer who discovered the bugs feeding on his peanuts. He called in some entomologists, and they identified the insect as a beetle native to South America. It's wingless -- like the young chinch bugs -- and travels only on foot.

DUMARS: It didn't walk clear to Florida.

MOORE: Well maybe it caught a ride. It has a tendency to climb up on things -- maybe it traveled by freighter, or by plane, or some other way.

DUMARS: Does it eat only peanuts?

MOORE: Oh no! It's what you call a general feeder. It eats peanuts and corn, --

DUMARS: It'll be heading straight for Kansas.

MOORE: Maybe they can stop it. But it eats corn and cotton and sweetpotatoes, and cabbage and collards, and velvet beans. How it likes velvet beans! And you know in the South -- they like to plant corn and velvet beans together. The beetle eats the corn, and then it eats the beans, and if the farmer raises cotton the next year -- the beetle eats the cotton.

DUMARS: Maybe they'll have to change their crop rotation.

MOORE: That's one way to outwit the pest -- if you live in one of the five Southern States* where it's now found.

DUMARS: Already spread to five States?

MOORE: Yes, but the entomologists are doing their best to keep it from spreading any farther. All infested areas are under rigid quarantine. All nursery stock is treated by fumigation.

DUMARS: Do the entomologists really think we'll ever get rid of this beetle?

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* Five States where white-fringed beetle is found and where there is a quarantine are Alabama, Florida, Louisiana, Mississippi, and North Carolina.

MOORE: Yes, they actually have hopes of eradicating the white-fringed beetle. Maybe if they can keep it from spreading any farther -- and if the farmers use the right kind of cultural practices -- crop rotations and so on -- and some day when the war's over we get more of that new insecticide, DDT -- they might get rid of the beetle. Before it gets to Kansas.

DUMARS: Here's hoping.

MOORE: And now, to summarize -- today we've described four different methods of control for four different insects that eat our food crops. And in this connection I think we ought to mention one more thing.

DUMARS: You mean crops resistant to insects.

MOORE: That's what I had in mind. Just think what it would mean -- if we had wheat resistant to the Hessian fly, and corn resistant to chinch bugs and grasshoppers!

DUMARS: Well, the plant breeders and entomologists are working on these things.

MOORE: They certainly are. In fact they've already made a good start. But in the meantime -- and especially this year, when we've got to have all the food we can grow -- we'll just rely on poison bait, chemical barriers, time of planting -- and all the other methods of bug control that we know will do the job.

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ANNOUNCER: (LIVE) You've been listening to Ernie Moore and Duke DuMars, of the United States Department of Agriculture, in one of a series of reports on -- "Farm Science Serves the Nation."

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